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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/626,376 | 07/24/2003 | Robert S. Greeff | 57226-A-RE | 2506 |

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| EXAMINER |
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LAVINDER, JACK W

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| ART UNIT | PAPER NUMBER |
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3677

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,376

Applicant(s)

GREEFF, ROBERT S.

Examiner

Jack W. Lavinder

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/10/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

A

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9, 11, 15, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by the French patent, 324092.

Regarding claim 1, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle “a” in figure 1), a second crown step (top two layers above the first layer), and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3).

Regarding claim 2, the French patent discloses eight straight rib lines extending continuously from the girdle to the culet (figure 3).

Regarding claim 3, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle “a” in figure 1), a

second crown step (top two layers above the first layer), and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3). The French patent discloses that the pavilion sides and corners each comprise a plurality of facets (d, figure 4).

Regarding claim 9, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1) having a facet corner angle, a second crown step (top two layers above the first layer) having a facet corner angle equal to the first step facet corner angle, and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3).

Regarding claim 15, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer), and a flat crown table (b)

Art Unit: 3677

having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3).

Regarding claim 21, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer), and a flat crown table (b) having a single facet with four sides and four corners (short sides). The steps in each side of the crown are defined by straight lines extending from the girdle to the table (figure 2). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3677

4. Claims 4-8, 10-14, 16-19, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the French patent in view of Johnston, 5072549.

Regarding claims 4, 5, 8, 14, and 16, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer), and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3). The French patent fails to disclose only two facets along each rib line.

Johnston discloses only two facets *along* the rib line (facets 49 and 60, figure 13).

It would have been an obvious design choice to a person having ordinary skill in the art to modify the French patent's pavilion facets to only include two facets extending along the rib line in order to change the aesthetic appearance of the gemstone to improve its marketability and value to prospective new customers.

Regarding claims 6, 7, 11, 12, 13, 17-19, and 23, the French patent discloses a cut cornered cut gemstone having a crown with two pairs of opposing crown sides (figure 2), four crown corners (short sides in figure 2), a first crown step (first layer above girdle "a" in figure 1), a second crown step (top two layers above the first layer),

Art Unit: 3677

and a flat crown table (b) having a single facet with four sides and four corners (short sides). The gemstone also includes a pavilion (figures 3 and 4) having a centrally located culet (small facet surface in the center of figure 3 and bottom surface in figure 4), two pairs of opposing pavilion sides, and four pavilion corners defined by eight straight rib lines extending from the girdle to the culet, as viewed from the bottom of the pavilion (figure 3). The French patent fails to disclose each pavilion side having at least three facets each having a facet corner intersecting at a common facet intersection point.

Johnston discloses pavilion sides each having at least three facets (55, 60, 60, figure 13) each having a facet corner intersecting at a common facet intersection point (65) about $\frac{3}{4}$ of the way between the culet and the girdle and a facet (60) with a facet corner at the culet. Johnston also discloses pavilion sides each having four facets (45, 49, 49, 55, figure 13) intersecting at a common facet intersection point, wherein one of the facets is a girdle star facet (45).

It would have been an obvious design choice to a person having ordinary skill in the art to modify the French patent's pavilion facets to only include three facets each having a facet corner intersecting at a common facet intersection point in order to change the aesthetic appearance of the gemstone to improve its marketability and value to prospective new customers.

Regarding claim 10, Johnston discloses pavilion sides being devoid of any facet intersection lines parallel with the girdle.

Art Unit: 3677

5. Claims 20 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over the French patent in view of Johnston, as applied above, and further in view of Remidio, D369758.

Regarding claims 20 and 23, the French patent in view of Johnston fails to disclose each pavilion side having a four-sided facet with a facet corner at the culet. Remidio discloses a four-sided facet, bottom facet in figure 2, having a corner facet at the culet and a corner facet intersecting with the other less than four-sided facets.

It would have been an obvious choice to modify the French or Johnston pavilion facets to include a four-sided facet with a corner of the facet intersecting with the culet in order to improve the aesthetic appearance of the gemstone to improve its marketability and value to prospective new customers.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

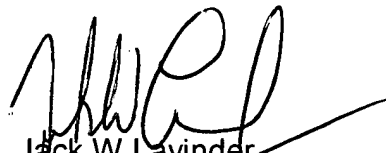
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack W. Lavinder whose telephone number is 571-272-7119. The examiner can normally be reached on Mon-Friday, 9-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3677

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jack W Lavinder
Primary Examiner
Art Unit 3677

4/18/05